

SUBJECT INDEX
Vol. 137A, Nos. 1–4

Acclimatization, 297
Acid infusion, 611
Acipenser, 611
Acomys, 419
ACTH, 357
Activation sequence, 237
Activity, 597
Adenosine triphosphate (ATP), 739
Adenylate, 227
Adrenal, 105
Adrenocortical responsiveness, 197
Aerobic muscle, 151
β-Alanine, 161
Ambient temperature, 339
American lobster, 541
Amino acid, 397
Ammonia, 391
Ammonium load, 683
Ammonotony, 391
Amphibia, 585
Amphibian, 605
Angiotensin converting enzyme, 605
Annelid, 227
Annexin, 173
Anomura, 321
Anterior pituitary cells, 357
Antiporter, 541
Arachidonic acid, 357, 631
Arctocephalus tropicalis, 507
Arginine-vasopressin, 357
Aridity, 703
Aromatase inhibitor, 11
Arterial stiffness, 311
Arthurdendyus triangulatus, 749
ATP, 227
ATP synthesis, 435
Atropine, 65
Autoantibody, 375
Aves, 711
Avian, 349, 657

Basal metabolic rate, 33, 639, 703
BBMV, 541
Beak trimming, 217
Betaine, 131
Bicarbonate, 409
Bioenergetics, 227, 703
Bird, 237
Birds, 723
Black-capped chickadee, 95
BLMV, 541
Block to polyspermy, 115
Blood glucose concentration, 57
Body condition, 197
Body mass, 639
Body temperature, 419
Bovine, 375
Brook trout, 151
Brown adipose tissue, 297
Buteo swainsoni, 697
[Ca²⁺]_i, 173
Cadmium, 189

Calcium ATPase, 247
Calcium regulation, 189, 247
Calcium-dependent lectin, 115
Canid, 33
Captivity, 105
Capture, 105
Capture stress protocol, 197
Carbonic anhydrase, 87, 683
Cartilage, 409
Catecholamine synthesis and metabolism, 39
Caviomorph, 57
Cell volume regulation, 259
Central Chile, 597
Cephaloscyllium, 489
Charr, 151
Chemically defended fruit, 33
Chick, 183
Chick embryo, 65
Chiroptera, 271
ChkZP11, 657
ChkZP3, 657
Chlorophyll fluorescence, 531
Cholesterol, 697
Cholinergic chronotropic control, 65
Chondrocyte, 173, 409
Citrate synthase, 731
Clearance, 375
Clibanarius, 321
Coelomic cells, 161
Collecting duct system, 585
Control of breathing, 723
Cooling, 675
Cooling and warming, 339
Copper, 757
Coprodeum, 683
Coral bleaching, 531
Cortical granule lectin, 115
Corticosterone, 95, 105, 197
Cortisol, 205, 507, 611
Coupling of ion uptake, 51
Crab, 383
CRF, 357
Cross-adaptation, 397
Crustacea, 51
Cryptozoic, 749
Cu/Zn SOD, 479
Cutaneous blood flow, 517
Cuticle, 189
Cyclooxygenase, 285
Cytochrome c oxidase, 731
Cytochrome P450 aromatase, 11
Cytochromes, 435

ddPCR, 205
Decapod, 631
Degen, 597
Depolarisation, 237
Desert, 419, 557
Development, 339
Development of respiration, 723
Diabetes, 57
Diarrhoea, 757

Diet composition, 383
Dietary protein, 391
Differential display PCR, 205
Digestibility, 703
Digestion, 141, 675
Diurnal variation, 105
Doubly labelled water, 419
Dreissena polymorpha, 425
Dustbathing, 217

Echocardiography, 489
Ecophysiology, 419
Efficiency of protein conversion, 75
Egg, 723, 739
Eglectin, 115
Eicosanoids, 285
Elasmobranchs, 489
Electro-olfactogram, 397
Electrogenic, 541
Electromyography, 151
Electrophysiology, 757
Eleocytes, 161
Embryo, 739
Embryos, 723
Endolymph, 87
Endoplasmic reticulum, 247
Endothelium, 21
Endothermic, 339
Energy, 419
Energy charge, 227
Epicardium, 237
Epithelial cells, 541
Eretmochelys imbricata, 197
Eriocheir sinensis, 189
Evolution, 419
Extracellular recording, 397

Fadrozole, 11
Fasting, 271
Fasting, 383, 507, 675
Fatty acids, 365, 567
Feather lipid, 217
Feather pecked, 217
Feed efficiency, 131
Feeding, 183
Ferritin, 375
Ferritin-binding protein, 375
Fertility, 739
Fertilization layer, 115
Field energetics, 597
Fish, 205, 397
Fish nutrition, 567
Flatworm, 749
Flea, 557
Follicle-stimulating hormone, 349, 447
Food intake, 639
Food quality, 33
Force-velocity, 711
Fos-like immunoreactivity, 183
Fowl aorta, 311
Free amino acids, 161
Frog sartorius muscle, 435
Functional assays, 435

Subject Index

Fur seals, 507
 Garden Warbler, 639
 Gas exchange, 557
 Gender-dependent changes, 311
 Gill epithelium ultrastructure, 189
 Gill perfusion, 51, 189
 Glacier, 227
 Glucagon-like peptide-1, 183
 Gluconeogenesis, 383
 Glycemia, 57
 Glycogen, 383
 Golden hamster, 297
 Gonadotropin-releasing hormone, 447
 Growth, 75, 131
 H⁺-ATPase, 409, 683
 Haemolymphatic glucose, 383
 Hatching, 723
 Hawksbill turtle, 197
 Heart function, 489
 Heart rate, 675
 Heart rate accelerations, 65
 Heart rate decelerations, 65
 Heat shock proteins, 479
 Heating, 675
 Hemocyte microaggregates, 285
 Hepatocyte, 131
 Hepatopancreas, 247, 383, 541
 Hermit crabs, 321
Heterodontus, 489
 High temperature, 11
 Highly unsaturated fatty acids, 631
 Hindlimb, 711
 Histology, 217, 683
 Homeothermy index, 339
 House mouse, 703
 HSP70, 479
 β-Hydroxybutyrate, 507
Hymeniacidon sanguinea, 365
 Hypersalinity, 621
 Hypertonicity, 173
 Hypoxia, 425
 Hysteresis of heart rate, 675
 Stricomorph, 57
 Ice, 227
 Immune complex, 375
 Immunoassay, 375
 Immunohistochemistry, 87
 In situ, 711
 In vitro, 131, 285
 In vivo, 131
 Inner peritelline layer, 657
 Insect immunity, 285
 Insectivorous, 271
 Instantaneous heart rate, 65
 Insulin, 57
 Intelectin, 115
 Intermediate metabolism, 479
 Intracellular calcium, 259
 Ion transport, 51, 585
 Ion uptake, 541
 Islands, 703
Isurus, 489
 Kidney, 585, 605
 Lactate, 611
 Lactate dehydrogenase, 731
 Lactation, 507, 649
 Laser Doppler, 517
 Lateral hypothalamic area, 183
 Latitudinal differences, 95
 Layers, 217
 Lectins, 683
Limnodynastes peronii, 731
 Lipid, 631
 Lipids, 365
 Lipopolysaccharide, 285
 Liver, 605
 Lizard, 675
 Locomotion, 711
 Low salinity, 321
 Luteinizing hormone, 349, 447
Manduca sexta, 285
 Masculinization, 11
 Membrane-transport, 409
 Metabolic enzymes, 479
 Metabolic rate, 557
 Metabolism, 597, 739
 Metal accumulation, 189
 Metal uptake, 189
 Microelectrodes, 585
 Migration, 697
 Milk composition, 649
 Milk production, 649
 Mink, 339
 Mixed diet, 33
 Mixture, 397
 Molting, 247
 Morphogenesis, 39
 Morphology, 217
 Mouse, 577
Mus musculus domesticus, 703
Mustelus, 489
 Na⁺ transport, 541, 683
 Na⁺-Ca²⁺ exchange, 173
 Na⁺, K⁺-ATPase, 621
 Na⁺/Ca²⁺ exchanger, 247
 Na⁺/H⁺ exchange, 541
 NCX, 247
 Neointimal plaque, 311
Nereis japonica, 161
Nerodia fasciata fasciata, 141
 Net flux method, 51
 New Zealand flatworm, 749
 NHE, 409, 541
 NHE2, 683
 NHE3, 683
 Nitric oxide, 21
 Nitric oxide synthase, 21
 Non-shivering thermogenesis, 297
 Noradrenaline, 297
 Notch, 577
 Nutritional condition, 697
 Olfaction, 397
 Olfactory bulb, 397
 Omega-3, 567
 Omega-6, 567
Oncorhynchus, 739
Oncorhynchus mykiss, 75
 Oocyte, 739
 Oocyte apoptosis, 11
 Oocyte lectin, 115
 Oral glucose tolerance test, 57
Oreochromis mossambicus, 621
 Osmolarity, 749
 Osmoregulation, 51, 161, 189, 321, 391
 Osteoarthritis, 409
 Otolith, 87
 Ovarian maturation, 631
 Ovary, 605
 Oxidation, 131
 Oxidative phosphorylation, 435
 Oxidative stress, 479
 Oxygen conformity, 425
 Oxygen consumption, 141, 723
 Oxygen regulation, 425
 Palmitate, 131
 Pancreatic hormones, 57
 Pavement gill cells, 259
 Peppertree, 33
 pH, 409
 Photoinhibition, 531
 Phylogeny, 447
 Physiological flexibility, 639
 Pig, 757
 Pigeon, 577
 Planarian, 749
 Plasma concentration, 271
 Plasma urea, 271
 PMCA, 247
Poecile atricapilla, 95
 Polar compounds, 365
 Polychaetes, 161
 Post-absorptive, 557
 Postprandial, 271
 Potassium, 665
 Potential mapping, 237
 Power output, 711
 Power production, 151
 Power spectrum, 577
 Prawn, 631
 Preen gland, 217
 Preferred ambient temperature, 297
 Pressure occlusion, 517
 Primary culture, 259
Prionace, 489
 Prostaglandin, 21, 285, 631
 Proteasome, 75
 Protein degradation, 75
 Protein synthesis, 75
 Protein turnover, 75
 Proton-buffering, 409
 Psychrophile, 227
 Puberty, 447
 Pulse pressure, 311
 Pulse wave, 311
 Pulse wave contour, 311
 Q₁₀, 557

Radioimmunoassay, 631
 Rainbow trout, 75, 151, 259
Rangifer tarandus, 649
 RAP-PCR, 205
 Rat, 357
 Re-feeding signal, 507
 Reactive hyperemia, 517
 Receptor, 397
 Receptors, 447
 Recovery, 567
 Recovery sequence, 237
 Recruitment intensity, 151
 Rectal temperature, 339
 Red muscle, 151
 Reindeer, 649
 Renal function, 391
 Repolarisation, 237
 Reproduction, 447
 Reproductive cycle, 605
 Reptile, 105, 675
 Respiration, 425, 479, 557
 Respiratory capacities, 435
 Respirometry, 141
 Resting metabolic rate, 419
Rhinobatos typus, 21
 Rodents, 597

Sacculus, 87
 Salinity, 365
 Salinity acclimation, 621
 Salinity adaptation, 51, 161
 24 h salinity challenge, 621
Salmo salar, 567
 Salmon, 87
 Salmonidae, 397
 Sarcoplasmic NADH oxidation, 435
 Saturated fatty acids, 357
Schinus molle, 33
 Sea urchin embryo, 39
 Seasonality, 597
 SERCA, 247
 Serum, 375, 605
 Serum chemistry, 697
 Serum lectin, 115

Sex, 197
 Sex-reversal, 11
 Sexual maturation, 349
 Sharks, 489
 Short circuit current method, 51
 Skeletal muscle, 711
 Skin blood flow, 517
 Small intestine, 757
 Soil, 749
 Soluble guanylyl cyclase, 21
 Spatial memory, 95
 Species specificity, 657
 Specific dynamic action, 141
 Specific rates of oxidation, 435
 Spermatogenesis, 447
 Spermatozoa, 657
 Sponges, 365
 Standard metabolic rate, 141
 Sternal epithelium, 247
 Steroids, 447
 Sterols, 365
 Stress, 105, 611
 Stress response, 95
 Sturgeon, 611
 Survival, 321
 Swainson's Hawk, 697
 Swimming performance, 567
 Swine, 131
 Synergistic release, 357

Tectum, 665
 Temperature, 205, 297, 557, 621, 675
 Temperature acclimation, 425, 639
 Terrestrial, 585, 749
 Testis, 447, 605
 Testosterone, 105, 197
 Thermal acclimation, 731
 Thermal compensation, 479
 Thermal stress, 531
 Thermal vasodilation, 517
 Thermoregulation, 339, 419, 703
 Thyroxine, 349
 Tilapia, 621
 Time course, 731

Time domain, 577
 Tracer method, 51
 Tricladida, 749
 Triglyceride, 697
 Triiodothyronine, 349
 Trout, 739
 TUNEL, 11

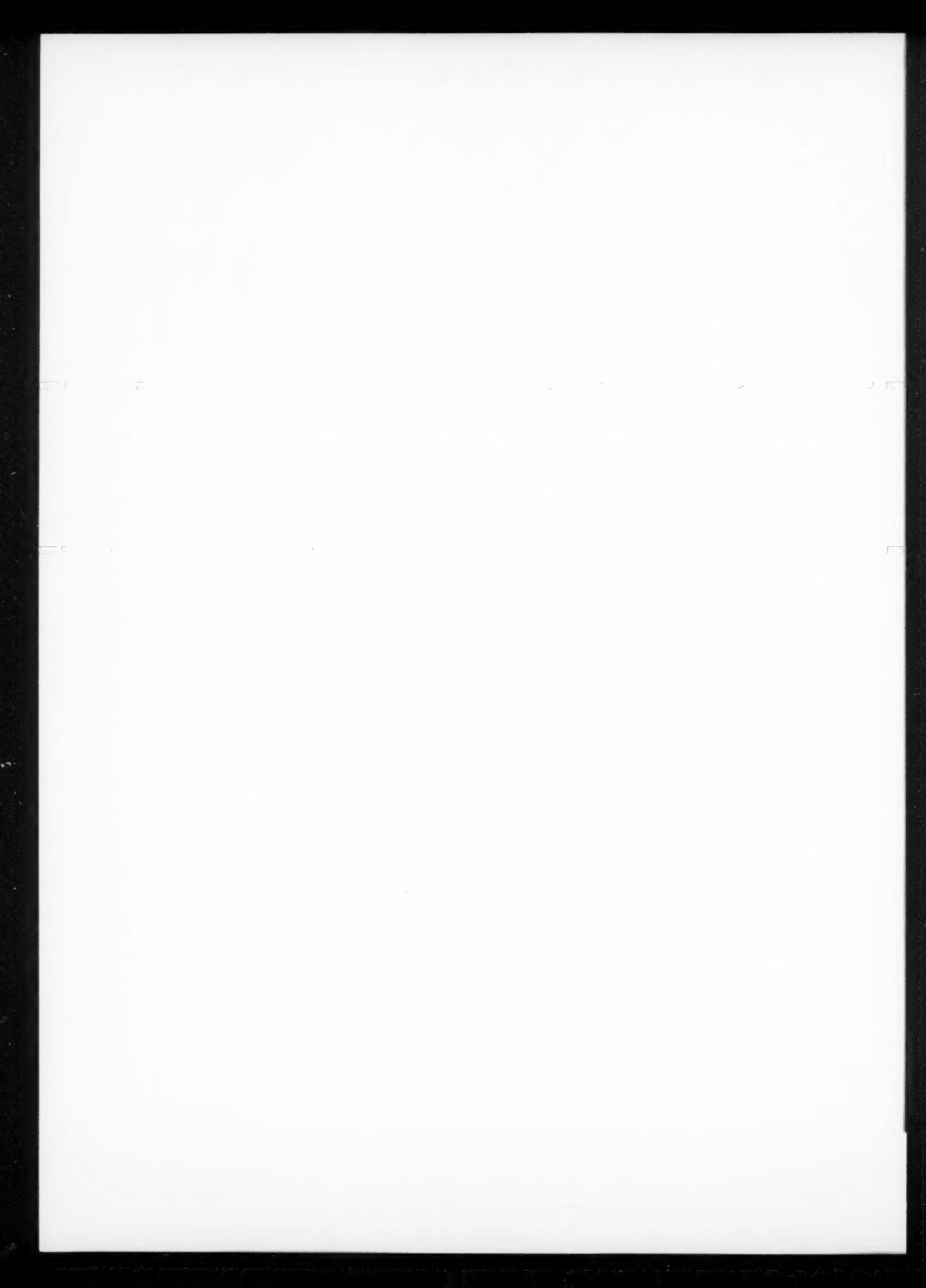
Ultrastructure, 683
 Unsaturated fatty acids, 357
 Urea, 391, 507, 697
 Urea clearance, 271
 Urea synthesis, 271
 Uric acid, 391, 697
 Urine, 391
 Urine concentration, 271
 Urine urea, 271
 Ussing chamber, 757

Vagal tone, 65
 Vagus nerve, 65
Varanus exanthematicus, 675
 Vascular remodeling, 311
 Vectorcardiogram, 577
 Ventricles of heart, 237
 Ventricular filling, 489
 Ventromedial hypothalamic nucleus, 183
 Visual stimuli, 665
 Volatiles, 365

Water turnover, 419
 Wave pattern, 577
 Western blotting, 87
 Whole muscle, 711
 Wide frequency band ECG, 577
 Wintering grounds, 697

Xenopsylla ramesis, 557

Zinc, 757
Zonotrichia capensis, 391
 Zooxanthella, 531



AUTHOR INDEX
Vol. 137A, Nos. 1-4

Abdel-Maksoud, M.M., 349
Abe, H., 161
Ahearn, G.A., 247
Ai, H.-b., 577
Akiyama, R., 65
Alexander Jr, J.E., 425
Amici, D., 605
Andersen, Øivind., 447
Andersson, E., 447
Ando, H., 87
Anitole-Misleh, K.G., 39
Arakelyan, M.S., 557
Asari, M., 357
Auffray, J.C., 703

Bacigalupo, L.D., 597
Balfry, S.K., 567
Bassett, J.E., 271
Bausek, N., 657
Bell, K., 105
Bencic, D.C., 739
Bennett, M.B., 21
Bhagooli, R., 531
Blaney, S.C., 75
Boag, B., 749
Bozinovic, F., 597
Bozinovic, F., 57
Bozinovic, F., 33
Bramucci, M., 605
Brauner, C.J., 621
Britton-Davidian, J., 703
Brooks, S.J., 619
Broughton, B.R.S., 21
Brown, K.M., 39
Browning, J.A., 409

Caperna, T.J., 131
Capp, C.L., 517
Carlson, D., 757
Catalan, J., 703
Cech, J.J., 611
Chang, B.Y., 115
Chiba, Y., 65
Chin Lai, N., 489
Christie, W.W., 365
Clayton, N.S., 95
Cloud, J.G., 739
Coates, M., 321
Congdon, J.D., 141
Cooper, J., 621
Coughlin, D.J., 151

Da Silva, R.S.M., 383
Dalton, N., 489
Damgaard Poulsen, H., 757
Davenport, J., 749
de Diego, F., 365
Devos, P., 189
Dobly, A., 75

Donald, J.A., 21
Dorwart, W.C., 517
Dunbar, S.G., 321

Elbrønd, V.Sdring., 683
Elias, N.T., 517
Elsasser, T., 349

Farrell, A.P., 567
Fernández-Figares, I., 131
Fielden, L.J., 557
Fukuoka, S., 65
Furuse, M., 183

Gabaldón, A.M., 711
Georges, J.-Y., 507
Gjøstein, H., 649
Gonzalez, R.J., 621
Graham, J.B., 489
Guinet, C., 507

Haim, A., 419
Hara, T.J., 397
Harjunpää, S., 339
Hasegawa, S., 183
Hedrick, J.L., 115
Henk Visser, G., 597
Hidaka, M., 531
Higgs, D.A., 567
Hillman, S.R., 517
Hirofushi, K., 183
Hoeger, U., 161
Holand, Øystein., 649
Holts, D., 489
Hopkins, W.A., 141
Houlihan, D.F., 75

Iguchi, T., 11
Ingermann, R.L., 739
Ishiji, T., 375
Ishiwata, H., 357

Jaksic, F.M., 33
Janet Horrocks, A., 657
Jefimow, Małgorzata., 297
Jessop, T.S., 197
Jones, C.J.P., 683
Jones, H.D., 749
Jones, S.M., 105

Katoh, K., 357
Kenagy, G.J., 597
Kharin, S.N., 237
Khokhlova, I.S., 557
Kitano, T., 11
Kitaysky, A.S., 95
Klaassen, M., 639
Krasnov, B.R., 557

Kruse, V.A., 479
Kucharski, L.C., 383
Kuenzel, W.J., 349
Kupschein, H., 419
Kwong, C., 489

Laberge, F., 397
Lacroix, A., 507
Lai, Y.Yin., 489
Lall, S.P., 567
Laming, G.E., 665
Laming, P.R., 665
Lancaster, S.S., 517
Larsen, E., 675
Larsen, E.Hviid., 585
Leguen, I., 259
Lesser, M.P., 479
Limpus, C.J., 197

Maccari, E., 605
Maldonado, K., 391
Mandal, A., 247
Mandal, P.K., 541
Mandal, P.K., 247
Mangin, S., 507
Marques, C.C., 703
Martin, S.A.M., 75
Mathias, M.L., 703
Matsumoto, M., 183
Matsumoto, S., 611
Møbjerg, N., 585
McMahon, R.F., 425
Miller, J.S., 285
Mills, C.Lloyd., 619
Mortola, J.P., 723
Mugiya, Y., 87
Murri, O., 605

Nagele, R.G., 227
Nagler, J.J., 739
Nair, R.C., 517
Napolitano, M.J., 227
Nechev, J., 365
Negro, J.Jose., 697
Nelson, F.E., 711
Ngo, B.T., 517
Niyya, A., 65
Nishimura, H., 311
Norberg, B., 447
Novak, I., 585
Nunes, A.C., 703

Obara, Y., 357
Oliveira, G.T., 383
Oltrogge, M., 639
Opazo, J.C., 57
Orino, K., 375

Péqueux, A., 189

Author Index

Peavy, T.R., 115
Philippi, T., 141
Picard, D.J., 205
Popov, S., 365
Powell, K., 217
Pravosudov, V.V., 95
Proudman, J.A., 349
Prunet, P., 259

Quassinti, L., 605

Ramalhinho, M.G., 703
Rasmussen, H.N., 435
Rasmussen, R., 489
Rasmussen, U.F., 435
Rathmayer, M., 51
Rendell, M.S., 517
Robaina, R., 365
Roberts, T.J., 711
Roe, J.H., 141
Roessig, J.M., 611
Rogers, K.D., 731
Rossi, I.Cristina., 383
Rouvinen-Watt, K., 339
Ruiz-Feria, C.A., 311

Sánchez, J.C., 173
Sabat, P., 391
Sandilands, V., 217
Sarasola, J.Hernan., 697
Sardella, B.A., 621
Sasaki, Y., 357
Savory, J., 217
Scantlebury, M., 419
Schiavi, J.M., 151

Schneider, W.J., 657
Schulte, P.M., 205
Seebacher, F., 731
Sehested, J., 757
Sepúlveda-Kattan, E., 391
Servera, N., 507
Shain, D.H., 227
Shalchian-Tabrizi, K., 447
Shanas, U., 419
Siebers, D., 51
Silva, S.I., 33
Silvestre, F., 189
Skadhauge, E., 683
Smith, D.M., 517
Soto-Gamboa, M., 57
Sousa, I., 703
Speakman, J.R., 419
Specker, A., 151
Stanley, D.W., 285
Steele, N.C., 131
Stefanov, K., 365
Stewart, S.G., 657
Sugahara, K., 183
Sumner, J.M., 197

Tachibana, T., 183
Tahara, D., 631
Tazawa, H., 65
Te, gowska, E., 297
Thompson, M.B., 731
Tohse, H., 87
Trausch, G., 189
Travaini, A., 697
Trost, L., 639
Uchida, D., 11

Yamamoto, S., 375
Yamashita, M., 11
Yano, I., 631
Yoshizawa, F., 183

Zaar, M., 675
Zhang, D., 311
Zhang, X.-y., 577
Zhu, J.-p., 577

